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Initiative 394 passes; Washington state voters now control funding for nuclear construction

Dan Utroska
Associate Editor

OLYMPIA, WA— The Washington State initiative requiring the Washington Public Power Supply System to secure voter approval before selling additional bonds for power plant construction has passed by a vote of 58 percent.

While the effect of Initiative 394 will definitely impact the supply system's ability to finance further nuclear power plant construction, the announced construction slowdown of units 4 and 5 will mitigate the impact somewhat. Bond sales for these plants will not be necessary until at least July, 1983, a spokesman for the supply system said.

On the other hand, planned bond sales to finance units 1, 2, and 3 will definitely collide with implementation of the initiative, which is scheduled to become effective in July, 1982. WPPSS has typically sold bonds about every 6 months, and the utility may go out for one sale—or possibly two—before the initiative is imposed.

'Don't Bankrupt Washington'

The initiative originated in a state organization called Don't Bankrupt Washington. According to coordinator Ed Zuckerman, the move behind the plebiscite was stimulated by what the group saw as uncontrolled spending at the five nuclear plants the supply system is currently constructing. WNP-1, WNP-2, and WNP-4 are being constructed at Richland, Wash., and WNP-3 and WNP-5 are being built in Satsop. All plants are nominal 1,250 megawatts, except unit 2 which is 1,150 MW.

Cost escalations have gone from $6.1 billion when the plants were first planned to $24 billion today. According to Zuckerman, WPPSS was not required to account for its budget in the way that private investor-owned companies have to report to public utility commissions. This led the citizen's group to formulate Initiative 394. Passage of the act essentially makes service area customers collective managers of construction; after July 1, 1982 the supply system cannot issue bonds without first obtaining voter approval. A special general election will now have to be held each time the supply system wants to issue bonds for each nuclear plant.

Under the initiative, only voters in the 23 public utility districts and cities that are supply system members would be eligible to cast ballots. The electorate essentially has the function of a review board, and will vote on each WPPSS nuclear plant as an entity.

While appeals to the initiative are likely to follow, Zuckerman said the measure had been carefully crafted to withstand constitutional challenges. "We're very confident it's solid," he

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Company awaits confirmation

Sunohio reports PCBX-treated oil is okay for transformers

CHICAGO— Sunohio has analyzed the oil that has been treated by the company's PCB destruction process and reports that it is of acceptable quality to be safety returned to electrical transformers.

"Th(e) test results confirm, in all parameters, that PCBX processed oil is suitable for ongoing use in transformers," Dr. Oscal Norman, principal inventor of the PCBX process said. "We are confident that all independent laboratory analyses now being undertaken will corroborate our test results and will verify what we have demonstrated, namely, that oil treated by the PCBX process is fully reusable as an insulating fluid."

Sunohio announced the details of its PCB destruction process earlier this year, but in a feature story run in this publication, industry researchers raised questions about the quality of the transformer oil after it had been treated by the Sunohio process (see *EL&P*, July, 1981, page 1).

Results of the company's tests—which were conducted by Dr. Norman at the Sun Tech laboratory in Marcus Hook, PA—were released at the Electrical/Electronics Insulation Conference. Sun Tech is the research and development arm of The Sun Company; Sunohio is a partnership formed by subsidiaries of The Sun Company and Ohio Transformer Corporation.

In a telephone interview, Dr. Norman said the treated oil had been analyzed using accelerated oxidation stability tests.

"Although the information seems to indicate that the PCBX process actually improves the stability of the oil, I really will not claim that," Dr. Norman said. "But I would state that the stability of the oil was not harmed (by the process)."

The Sun Tech researcher also noted that he had taken six different transformer oils that had been treated by the PCBX process and subjected them to ASTM tests D-2440. The results of these tests, he said, showed that the oil had not been adversely affected by the process.

Dr. Norman also sought to correct what he saw as a misunderstanding that had developed around the PCBX process. He said some persons believe that the Sunohio process is limited to PCB concentrations of 500 parts per million or less.

"This is totally untrue," Norman said. "Our EPA approval permits processing contaminated mineral oil with no restriction whatsoever on the degree of contamination. We have commercially processed concentrations in excess of 1,200 ppm, but our mobile rigs are able to process concentrations in the tens of thousands of ppm and will do so as they are encountered in the field."

Since gaining EPA approval in three regions, Sunohio reports that it has been working with a number of organizations, including Boston Edison, Georgia Power, and TVA. The work has included destroying PCBs at these locations or in scheduling the processing of oils containing PCBs.

Reagan's energy policy

Last chance for private enterprise: DOE's Chiles

Private industry is being given a chance to make key decisions about energy investments on its own, says DOE director of policy, planning, and analysis J. Hunter Chiles. "If it muffs it here," Chiles told a Chicago energy conference, "it will blow it for 50 years."

CHICAGO — There's been a revolution in energy policy and key decisions will be made by private enterprise, not the federal government if the Reagan Administration has its way, DOE's director of policy, planning and analysis J. Hunter Chiles, told the Illinois Energy Conference here.

"If private enterprise doesn't work here," Chiles warned, "I don't see it having another chance in our lifetime. If it muffs it here, it will blow it for 50 years."

Chiles was one of several spokesmen describing the Reagan energy policy to this annual meeting of midwestern energy officials sponsored by the University of Illinois' energy policy center. Issues covered were the administration's recently published National Energy Policy Plan, the nuclear statement issued by the president, the coal severance tax problem, and the administration plan for dismantling the solar energy and conservation tax incentives put in place by the Carter Administration.

DOE's Chiles explained that there's been a key change in federal policy toward imported oil, "In the critical area of oil imports, we propose once again to adhere to free-market principles — so that we will not try to eliminate *all* imports *at any cost*. At some level, oil imports may make economic sense." The Reagan policy, he added, is to deal with the threat of oil imports by building up the strategic oil reserve.

Regarding electricity, the former Westinghouse manager said he expected demand for electricity to rise faster than the overall demand for energy and that there would be a shift away from oil toward coal and nuclear generation. He also repeated the administration's energy R&D policy which is to cut federal spending by billions of dollars and to turn demonstration and commercialization of new technology over to private enter-

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told *EL&P*.

One provision of the referendum is that before an election can be held, an independent consultant, selected by the state senate finance committee, has to conduct a cost-effectiveness study for each project and submit the results to the Secretary of State. If such a study shows a project uneconomic, the election would still be held but now voters would have an additional piece of information, Zuckerman explained.

Units 4 & 5: controversial focus

Although the Don't Bankrupt Washington organization was concerned about cost overruns in the construction of all five WPPSS nuclear plants, units 4 and 5 have been at center stage in recent months, as rising interest rates and inflation, compounded by substantial labor problems and supply system mismanagement, have threatened their existence.

Whereas the federal government, through the instrument of the Bonneville Power Administration, is underwriting the construction of Units 1, 2, and 3, no such financial safety net has been strung under units 4 and 5. BPA has contracted to purchase the power from the first three units and the revenues from the ratepayers are security for the bonds that are floated. The 88 participants in units 4 and 5 (excluding four investor-owned utilities) are all small public utility districts and, according to a supply system spokesman, all had agreed to purchase power from the plants before construction began.

What makes such an arrangement significantly less secure than the BPA purchase agreement, is that there are questions about the need for power in the area. Obviously, if demand drops, revenues of the 88 PUDs will fall, and the bonds may go to default.

The utility concedes there has been mismanagement. Prior to last year, there were no contractors responsible for overall construction management, WPPSS spokesman John Britton said. "We had an integrated system of management," he explained, "which is, in short, management by committee."

On unit 4, for example, there were at least 29 major contractors, not counting all the subcontractors. Efforts recently have been made to correct the situation, however. A new managing director, Robert Ferguson, was brought in last year. In May of this year, Bechtel Power Corporation was hired as overall construction manager for units 1, 2, and 4. Similarly, Ebasco Services was brought in to manage units 3 and 5. These moves permitted the supply system to back out of the everyday, detailed construction management role it had previously assumed, and WPPSS now oversees the work of Bechtel and Ebasco.

On October 23 four new outside members were elected to serve on a restructured executive board which will control much of the authority for running the supply system while it is building the nuclear power plants. Establishment of the 11-person executive board, which will have 7 members from the existing board of directors, was mandated in the past session of the state legislature. The legislation spelled out that all 11 members were to be selected "with the objective of establishing an executive board which has the resources to effectively carry out its responsibilities. To the extent possible, the membership and operation of the board should be patterned after boards of directors of large private corporations."

The four new outside members are C. Michael Berry, president of the Seattle-First National Bank; Edward E. Carlson, chairman, UAL, Inc.; Charles F. Luce, chairman of the board, Consolidated Edison Co.; and William E. Roberts, vice president and owner, Morgan Park, Inc.

Why financing problems?

According to a utility spokesman, when new managing director Robert Ferguson was installed in August 1980, he instituted a new "bottoms up" budget review, based on actual costs experienced rather than on cost estimates alone. He came up with a rather large increase in budget expenditures for units 4 and 5 — on the order of $1.6 billion for FY 1982. This was part of a $3 billion budget for this fiscal year for all five plants, and constituted twice as much as the supply system has ever had to raise, the spokesman explained. Because it was "extremely difficult and rather improbable" that such an amount could be raised, and because there was growing public concern that power from units 4 and 5 may not be needed, the supply system decided that it would postpone construction of the plants.

The postponement — which WPPSS prefers to call mothballing — was originally expected to be for only 6 months, but now the plants will be on hold for about 2 years, or until July 1983. But according to Don't Bankrupt Washington's Ed Zuckerman, public sentiment in the region for continuing construction of units 4 and 5 is strongly negative. He believes the plants are dead.

To the utility, mothballing means that there will be no construction, and only enough maintenance will be conducted at the sites to prevent deterioration.

It has been rough going in recent months, as the supply system has struggled to get enough money to cover mothballing costs. At first, the 88 small public utility district participants were solicited for the $150 million that was needed to bring the WPPSS mothballing fund to the required level of $400 million. However, they balked, and after considerable negotiating, an agreement was worked out whereby the participants would come up with $91 million, the four investor-owned utility participants (except Portland General Electric) would come up with $29.5 million, and regional industry (primarily large aluminum plants) would come up with the remaining $29.5 million.

While an agreement has been reached in principle, it has still not been formalized, the WPPSS spokesman said. He added that because the 88 PUD's were so widely dispersed, it was simply a "matter of logistics" that final agreement had not yet been reached. A formalized accord is expected to be completed by January 1.

Mothballing costs include maintenance at units 4 and 5 and contracts for materials and overhead.

The four investor-owned utilities involved in construction of these two nuclear units are Pacific Power & Light, Portland General Electric, Puget Sound Power and Light, and Washington Water Power.

By terminating construction on units 4 and 5, the supply system calculates that it reduces its overall construction budget by nearly one-half. The original budget of $6.1 billion for construction of all 5 plants has risen to $24 billion this year. Because units 4 and 5 were significantly less advanced in construction than the other three (25 percent and 15 percent, respectively), almost half of the $24 billion was allocated for these units. Mothballing reduces the supply system's overall construction budget to about $12 billion.

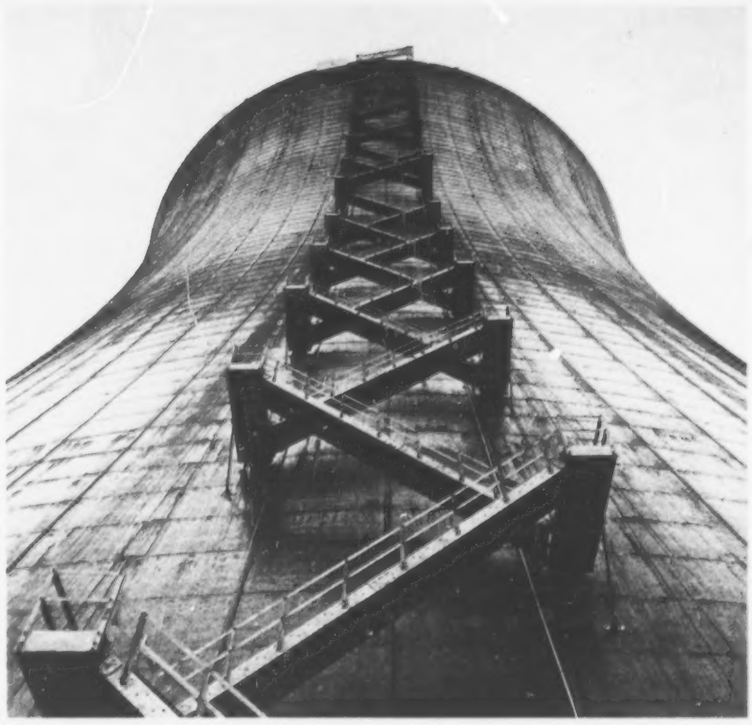
To date, $2.25 billion has been sunk into units 4 and 5.

WPPSS spokesman John Britton said that contracts for all five units included the provision that interest on the plants did not have to be paid until the original dates of startup were reached. All three of these dates have passed for the first three units, and although none of these plants is yet operating, interest is being paid from the higher rates the supply system is collecting from ratepayers.

For units 4 and 5, interest payments begin in March 1983.

The supply system will not have to sell bonds for units 4 and 5 until July, 1983, assuming that it decides to resume construction. By then, the state of Washington will have delivered its analysis on the need for units 4 and 5 and the Regional Power Council will have submitted its study on the need for power.

Also by then it may be that litigation over Initiative 394 will have determined the constitutionality of that measure.



These stairs crisscross their way up the WNP-3 cooling tower almost as steeply as the costs of the Washington Public Power Supply System's nuclear plants have climbed. WNP-3 is one of five nuclear plants the supply system has in construction and one of three that is likely to be completed. WNP-4 and WNP-5 have been "mothballed" and may eventually be cancelled.

GPU agrees to buy more Ontario Hydro power

TORONTO — Ontario Hydro and General Public Utilities have signed a letter of intent for GPU to buy up to 1-million kilowatts of power for 10 years. The agreement is subject to regulatory approval in Canada and the U.S. First power could flow to GPU in early 1985 via five d-c lines.

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Spent nuclear fuel storage is utility responsibility, says DOE

ST LOUIS — The U.S. Dept. of Energy has killed the Carter Administration's plan to acquire spent nuclear power plant fuel from utilities and store it in a facility to be built by the federal government, DOE's James Fiore reported to the Joint Power Generation Conference here. Fiore, a project engineer in DOE's division of transportation and fuel storage, said that utilities have the responsibility for meeting their spent fuel storage needs and for developing any new storage technology that might be needed. DOE's role, he added, will be "...encouraging and participating in the testing and demonstration of alternative storage methods by private industry." Those methods, he said, are dry storage in casks, drywell storage, silo storage, and disassembly of the bundles for compact rod storage, either wet or dry.

The new DOE projections show that spent fuel storage capacity at reactor sites will be sufficient at least until 1986, said Fiore. The Carter Administration had projected in January 1980 that away-from-reactor storage would be needed in 1981. That was based on projected nuclear capacity of 276 GW in the year 2000. The Reagan DOE, however, sees only 180 GW of nuclear capacity in place by the year 2000 and, therefore, a reduced need for external storage.

The new projection shows external storage needs beginning in 1986 and building up to 11,000 tonnes by 1198 "when a full-scale licensed disposal facility might be available," said Fiore.

That projection assumes maximum use of existing reactor spent fuel pools. Fiore said that 23 utilities plan to increase pool capacity prior to 1990 and that another 15 could be packed tighter according to DOE's analysis. Even with maximum reracking, some utilities, as shown in the table, will have a shortage of space starting in 1986. Fiore said a number of steps could be taken to handle these problems including transshipment from utilities with a lack of space to those with an excess and by not maintaining an on-site full-core reserve capacity in case of an emergency. "The department does not advocate operations without full core reserve because full core reserve is a prudent operational procedure," said Fiore. "However, it is not necessary to avoid reactor shutdowns."

The DOE official outlined the following methods for taking care of the utilities with near-term storage problems:

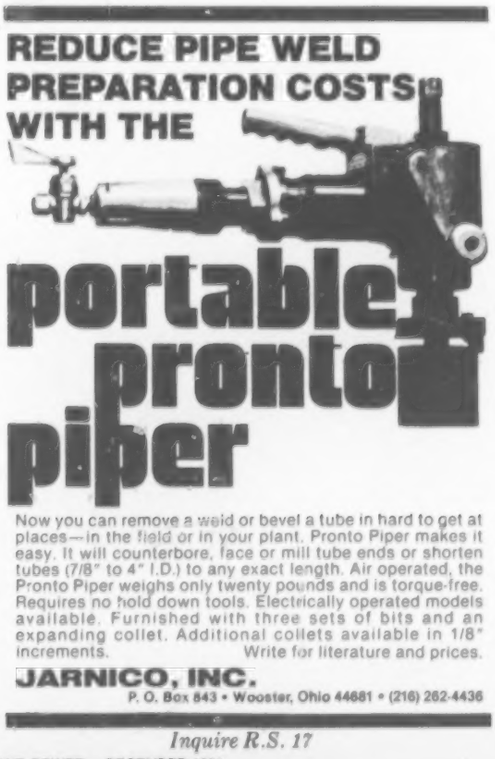
- Use of existing storage facilities such as the GE-Morris, AGNS-Barnwell, and NFS-West Valley facilities. "The absence of a federal program to acquire and use these facilities does not preclude their use by private industry," said Fiore.
- New water basin storage facilities could be built either at reactor sites or outside by utilities or by other parties, Fiore suggested. It should only take 8 years to bring such facilities on line, he said.
- Transshipment could take better advantage of existing industry capacity. "While interutility transshipments could face institutional obstacles," Fiore noted, "there are no obstacles that are safety related."
- Capacity of existing reactor pools could be doubled by disassembling the spent fuel assemblies and storing the fuel in rods.
- The fuel assemblies could be stored "dry" rather than in the water pools used to date. "Although there is significantly more experience with water storage," said the DOE engineer, "there are no known technical problems that prevent the use of dry storage."

DOE, said Fiore, will concentrate its "encouragement" and "participation" on demonstrations of the last two methods. By the end of 1982 will test the licensing and technology of BWR fuel disassemble and "rod consolidation" at the Tennessee Valley Authority. A PWR demonstration partner is being sought. DOE will also conduct an unlicensed of dry storage in casks at a DOE site in fiscal 1982, Fiore reported. A licensed demo at a utility site will be done in 1983, he added. The department is also testing drywell and silo storage at a DOE facility. The goal is to prepare a generic Safety Analysis Report for each method, said the DOE official.

REACTORS WITH NEAR-TERM STORAGE REQUIREMENTS

Reactor	State	Year When Additional Storage Capacity is Needed
Robinson - 2	South Carolina	1986
Brunswick - 1	North Carolina	1986
Dresden - 1	Illinois	1986
Palisades	Michigan	1986
St. Lucie - 1	Florida	1986
Surry - 1,2	Virginia	1986
Oyster Creek	New Jersey	1987
Maine Yankee	Maine	1987
Peach Bottom - 2	Pennsylvania	1987
Peach Bottom - 3	Pennsylvania	1987
Oconee - 1,2	South Carolina	1987
Brunswick - 2	North Carolina	1988
Turkey Point - 3	Florida	1988
Indiana Point - 3	New York	1988
Ginna	New York	1988
Vermont Yankee	Vermont	1988
Pilgrim - 1	Massachusetts	1989
La Crosse	Wisconsin	1989
Oconee - 3	South Carolina	1989
Turkey Point - 4	Florida	1989
Millstone - 1	Connecticut	1989
Monticello	Minnesota	1989
Fitzpatrick	New York	1989
San Onofre - 1	California	1989
North Anna - 1,2	Virginia	1989
San Onofre - 2	California	1990

Source: "The Dept. of Energy's Interim Spent Fuel Management Program," by James Fiore, DOE. 1981 Joint Power Generation Conference.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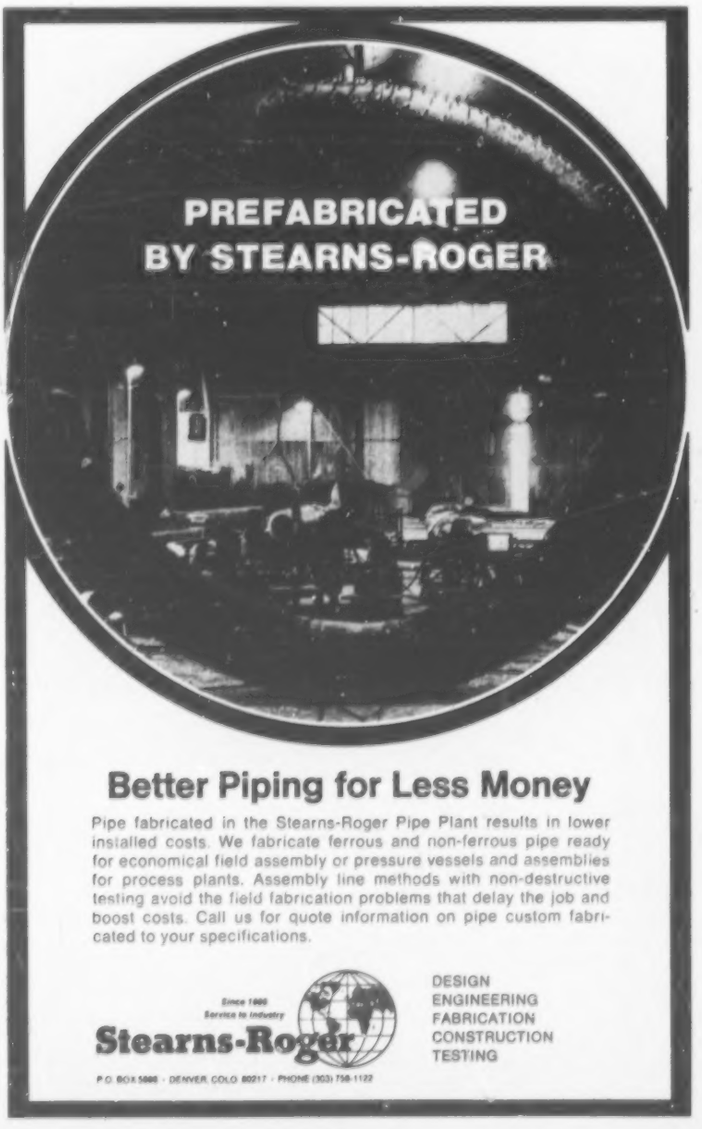
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